

F0601

**Abstract of the Invention**

A system and method for analyzing sheet resistivity of a layer on a wafer employing electrical methods and for controlling rapid thermal annealing (RTA) of the layer is provided. The system includes components for performing RTA on the layer and  
5 components for analyzing the sheet resistivity of one or more portions of the layer upon which RTA was performed. The system further includes a feedback generator adapted to accept sheet resistivity data and to produce feedback information that can be used to control the RTA components. The system further includes a data store that can be employed in machine learning and/or to facilitate generating feedback information that  
10 can be employed to control RTA and a monitoring application that can be employed to schedule maintenance on the various components in the system.

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